Harnessing data to fuel continuous improvement in the paper & tissue industry

Industry's structural changes create a data imperative

As the paper & tissue industry prepares to enter the next decade, companies' survival could hinge on their ability to harvest insights from an ever-increasing deluge of data.

Several key structural changes are driving this data imperative:

- While the tissue-paper industry continues to grow, the packaging industry is slowing down and the graphic-paper segment is declining.[1]
- Aging manufacturing assets require significant upgrades to meet changing product dynamics.
- Driven by shifting macroeconomic and environmental factors, rising raw material (pulp, chemicals) costs are trimming companies' margins.[2]

In response, some paper companies increased prices in 2019. Others have explored manufacturing premium-priced niche products, although aging mill assets often make this a difficult path to follow.

To significantly boost manufacturing productivity and competitiveness in a time of dramatic structural upheaval, paper manufacturers need to take a different approach.

1 Resource Information Systems, Inc., February 2019
2 U.S. Bureau of Labor Statistics

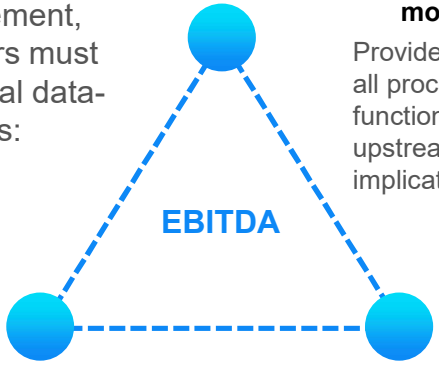
System-wide data visibility is the key

The next level of continuous improvement in the paper & tissue industry will be driven by data —, or, more specifically, by paper manufacturers' ability to use all of their data, regardless of its format or where it was created.

Unfortunately, industry players often struggle to make this happen. Like their counterparts in many other industries, paper & tissue companies typically generate a flood of production data — but only a trickle of insight. Data from multiple sources isn't integrated, so there is no scalable way to understand the interrelationships between machine data and production events. In addition, because information isn't shared across functional boundaries, there is no ability to drive cross-plant optimization and continuous improvement.

3 essential data capabilities enable continuous improvement

To reach the next level of continuous improvement, paper manufacturers must possess three critical data-handling capabilities:



1 System-wide models

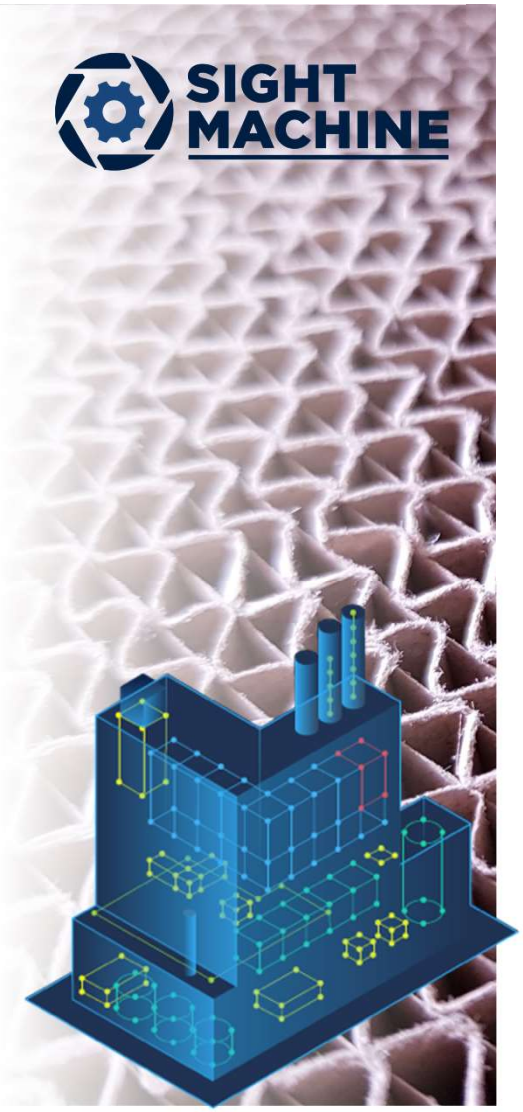
Provides an integrated view of all processes, assets, functions, and plants, including upstream and downstream implications

2 Real-time streaming

Enables informed decisions on current production activity

3 Digital manufacturing expertise

Ensures production operations can work with data, end-to-end



The Sight Machine platform offers all three capabilities:

- **First, it collects data** from across an entire paper- or tissue-making company — from the pulp plant, to the paper mill, to the converting plant, to the packaging area.
- That information is then **assembled**, **contextualized**, and **leveraged** to present a single source of truth for the entire organization.
- Finally, the data is **modeled** into a "digital twin" that mirrors the complete production process, transforming data into actionable intelligence to solve previously intractable problems.

Global paper manufacturer reduces scrap rates, improves operations

A leading paper manufacturer suffered from high scrap rates and changeover inefficiencies driven by variations in paper grade. Efforts to resolve these issues were stymied by a time-consuming, labor-intensive data analysis process that failed to show critical interrelationships between data and production events.

Using Sight Machine, the manufacturer combined process, quality, and downtime data to create a digital twin of the end-to-end process. This allowed the team to view how machine parameters impacted downtime and quality, including all machine parameters associated with the paper reels. Sight Machine's platform enabled the team to improve operating procedures by operationalizing data.

Bottom-line impact: improved productivity, lower costs

By using Sight Machine to leverage data across the entire company, paper manufacturers can maximize the value they derive from their aging assets, while minimizing the unit cost of production.

These lower unit costs will help manufacturers absorb rising raw material costs and more aggressively pursue production of premium-priced niche items – using current automation capabilities and data that already exists. Continuous improvement has never been easier.

To learn more about how paper manufacturers are improving production with system-wide data visibility, download a free white paper at **sightmachine.com/solutions/paper-and-tissue/**